

applying the force 46 in FIG. 3. Accordingly, FIG. 13 depicts FIG. 3 with end contacts 48 of
conductive buttons 38 soldered to the pads 33 of the substrate 32 prior to application of the force
46, in accordance with embodiments of the present invention. A solder interface 31
mechanically and conductively couples the end contacts 48 to the pads 33. If the substrate 32 is
an electronic module and the substrate 34 is a printed wiring board, then the solder interface 31
enables the collective unit of the substrate 32 (i.e., the electronic module) and the attached
conductive button 38 to be repaired or removed in the field should the substrate 32 fail during
field testing or during field operation. If the substrate 32 is a printed wiring board and the
substrate 34 is an electronic module, then the solder interface 31 enables the substrate 32 (i.e., the
electronic module) to be repaired or removed in the field should the substrate 32 fail during field
testing or during field operation.

As an additional embodiment, FIG. 14 depicts FIG. 13 after end contacts 47 of
conductive buttons 38 have been soldered to the pads 35 of the substrate 34, in accordance with
embodiments of the present invention. In FIG. 14, a solder interface 45 mechanically and
conductively couples the end contacts 47 to the pads 35. Note that the force 46 (see FIG. 13) is
not present in FIG. 14, because the solder interfaces 31 and 45 cause the end contacts 48 and 47,
respectively, to be permanently attached (mechanically and conductively) to the pads 33 and 35,
respectively. As an example, the permanent solder connection between the end contacts 47 to the
pads 35 may be effectuated after the electrical structure 30 has been successfully tested.

While embodiments of the present invention have been described herein for purposes of
illustration, many modifications and changes will become apparent to those skilled in the art.

Accordingly, the appended claims are intended to encompass all such modifications and changes as fall within the true spirit and scope of this invention.

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